

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-----------------|----------------------|-------------------------|------------------|
| 10/722,852 | 11/25/2003 | Benjamin Edward Russ | 81661/7114 | 8658 |
| 37123 | 7590 07/28/2004 | | EXAM | INER |
| FITCH EVEN TABIN & FLANNERY 120 SOUTH LASALLE SUITE 1600 CHICAGO, IL 60603 | | | PERRY, ANTHONY T | |
| | | | ART UNIT | PAPER NUMBER |
| omorios, i | | | 2879 | |
| | | | DATE MAILED: 07/28/200- | 4 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|--|---|------|--|--|--|
| | 10/722,852 | RUSS ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Anthony T Perry | 2879 | | | | |
| The MAILING DATE of this communica Period for Reply | tion appears on the cover sheet t | vith the correspondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNICA - Extensions of time may be available under the provisions of 3 after SIX (6) MONTHS from the mailing date of this communical if the period for reply specified above is less than thirty (30) of the second of the specified above, the maximum statute failure to reply within the set or extended period for reply will Any reply received by the Office later than three months after earned patent term adjustment. See 37 CFR 1.704(b). | ATION. 7 CFR 1.136(a). In no event, however, may a cation. ays, a reply within the statutory minimum of the cory period will apply and will expire SIX (6) MC, by statute, cause the application to become a | a reply be timely filed irry (30) days will be considered timely. DNTHS from the mailing date of this communicati ABANDONED (35 U.S.C. § 133). | ion. | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed of | on 25 November 2003. | | | | | |
| · · · · · · · · · · · · · · · · · · · | ☐ This action is non-final. | | | | | |
| ·— | | tters, prosecution as to the merits | is | | | |
| ,— | Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4) ☑ Claim(s) <u>1-38</u> is/are pending in the app 4a) Of the above claim(s) is/are 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) <u>1-6,11,12,22-25,27,28 and 30</u> 7) ☐ Claim(s) <u>7-10,13-21,26,29 and 36-38</u> is 8) ☐ Claim(s) are subject to restriction | withdrawn from consideration. 1-35 is/are rejected. 6/are objected to. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the E 10) The drawing(s) filed on 25 November 2 Applicant may not request that any objection Replacement drawing sheet(s) including the second of | 003 is/are: a) \square accepted or b) on to the drawing(s) be held in abey e correction is required if the drawing | ance. See 37 CFR 1.85(a). ng(s) is objected to. See 37 CFR 1.121 | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for a) All b) Some * c) None of: 1. Certified copies of the priority do 2. Certified copies of the priority do 3. Copies of the certified copies of application from the Internationa * See the attached detailed Office action for | cuments have been received. cuments have been received in the priority documents have bee I Bureau (PCT Rule 17.2(a)). | Application No n received in this National Stage | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO | -948) Paper N | v Summary (PTO-413) o(s)/Mail Date | | | | |
| Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/24/04,6/25/04. 5) Notice of Informal Patent Application (PTO-152) 6) Other: | | | | | | |

Art Unit: 2879

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 22-25, 27-28, and 30-35 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,559,602. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

| U.S. Application SN 10/722,852 Claims 1 and 22 | U.S. Patent No. 6,559,602 Claim 1 | Patent '602 claims a device for electric field control in a field emission display comprising a cathode substrate; a plurality of emitter lines formed on the cathode substrate; and a plurality of gate wires crossing over the plurality of emitter lines, each gate wire having a cross section shaped to produce an electric field between adjacent gate wires that is substantially uniform and substantially flat across a portion of an emitter line in between the adjacent gate wires, the electric field causing an electron |
|--|------------------------------------|--|
| Claim 2 and 27 | Claim 2 | emission from the portion of the emitter line. Patent '602 claims the display wherein the cross section of each gate wire is shaped to produce the electric field which causes the electron emission that is substantially straight from the portion of the emitter line. |

Art Unit: 2879

| Claim 3 and 28 | Claim 3 | Patent '602 claims the display wherein the cross section of each |
|-------------------|-----------|--|
| Ciaiiii 3 ailu 28 | Ciailii 3 | |
| | | gate wire is shaped to focus the electron emission from the |
| | | portion of the emitter line. |
| Claims 4-6 and | Claim 4 | Patent '602 claims the display wherein the cross section of each |
| 23-25 | | gate wire is shaped to have a geometry with at least a portion of |
| | | an upper left section and an upper right section of the geometry |
| | | removed. The at least the portion comprises a notch removed |
| | | from the upper left section and the upper right section. The cross |
| | | section is shaped in a generally rectangular geometry. |
| Claim 30 | Claim 1 | Patent '602 claims a gate device for use in a field emission |
| | | display comprising: a wire adapted to cross over emitter lines of |
| | | a cathode substrate; the wire having a length adapted to extend |
| | | across at least a portion of the cathode substrate; the wire having |
| | | a cross section adapted to produce an electric field between the |
| | | wire and an adjacent wire that is substantially uniform and |
| | | substantially flat across a portion of an emitter line. The electric |
| | | field is inherently formed by applying a voltage potential |
| | | between the wire and the adjacent wire and the emitter line. |
| Claim 31 | Claim 2 | Patent '602 claims the device wherein the cross section is |
| | | adapted to produce the electric field which causes an electron |
| | | emission that is substantially straight from the portion of the |
| | | emitter line. |
| Claim 32 | Claim 3 | Patent '602 claims the device wherein the cross section is |
| | | adapted to focus an electron emission from the portion of the |
| | | emitter line. |
| Claims 33-35 | Claim 4 | Patent '602 claims the device wherein the cross section is shaped |
| | | to have a geometry with at least a portion of an upper left section |
| | | and an upper right section of the geometry removed. The at least |
| | | portion comprises a notch removed from the upper left section |
| | | and the upper right section. The cross section is shaped in a |
| | | generally rectangular geometry. |
| | | <i>B</i> |

Claims 11-12 are rejected under the judicially created doctrine of obviousnesstype double patenting as being unpatentable over claims 1 and 17 of U.S. Patent No.

Art Unit: 2879

6,756,730. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

| U.S. Application | U.S. Patent | Reasons for rejection under obviousness-type double patenting |
|------------------|---------------|---|
| SN 10/722,852 | No. 6,756,730 | |
| Claims 11 | Claim 1 | Patent '730 claims a field emission display comprising: a cathode substrate including a plurality of emitter lines formed on the cathode substrate; a plurality of gate wires positioned over the cathode substrate; and an anode plate including a plurality of phosphor lines positioned over the plurality of gate wires, the plurality of phosphor lines aligned with the plurality of emitter lines. |
| Claim 12 | Claim 17 | Patent '730 claims the display wherein each gate wire has a cross section shaped to produce an electric field between adjacent gate wires that is substantially uniform and substantially flat across a portion of an emitter line in between the adjacent gate wires, the electric field causing an electron emission from the portion of the emitter line. |

Allowable Subject Matter

Claims 7-10, 13-21, 26, 29, 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (571) 272-2459. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-24597. The fax phone number for this Group is (703) 872-9306.

Art Unit: 2879

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Anthony.perry@uspto.gov].

All Internet e-mail communications will be made of record in the application file.

PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35

U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

hot I

Anthony Perry Patent Examiner Art Unit 2879 July 26, 2004

Vip Patel Primary Examiner Art Unit 2879